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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/649,427 | 08/28/2000 | Scott G. Meikle | 108298511US | 7170 |

25096 7590 07/03/2002

PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER

BROWN, CHARLOTTE A

| ART UNIT | PAPER NUMBER |
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1765

16

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/649,427

Applicant(s)
Meikle

Examiner
Charlotte A. Brown

Art Unit
1765



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 28, 2000
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above, claim(s) 24-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-23, drawn to a method for forming a planarizing medium, classified in class 438, subclass 692.
 - II. Claims 24-29 and 35-42, drawn to a planarizing pad for planarizing a microelectronic substrate, classified in class 156 , subclass 345.
 - III. Claims 30-34, drawn to a method for removing material from a microelectronic substrate, classified in class 438, subclass 692.
 - IV. Claims 43-54, drawn to an apparatus, classified in class 156, subclass 345.
2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another materially different process such as not disposing the discrete elements and a film support material on a support liquid with portions of the discrete elements spaced apart from each other.

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3. Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another materially and different process such as not drawing the support material and the discrete elements from the support liquid.

4. Inventions III and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another materially different process such as not engaging the planarizing pad with the microelectronic substrate.

5. Inventions I and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another materially different process such as not disposing the

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discrete elements and a film support material on a support material on a support liquid with portions of the discrete elements spaced apart from each other.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with John Wechkin on June 14, 2002 a provisional election was made with traverse to prosecute the invention of Group 1, claims 1-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-54 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adefris et al (US 6,319,108) and Adefris et al. (US 6,354,929).

Adefris (#108) discloses a method for using an abrasive article to abrade a workpiece. Ceramic abrasive composites are made by mixing together a temporary binder, abrasive particles, a ceramic presursor, and a solvent, to make a slurry. The abrasive composites are then removed from the slurry and separated into individual composites (Column 8, lines 28-38). This reads on the applicant's limitation of separating the planarizing medium into discrete elements. The abrasive articles and the abrasive composites are affixed to a backing. The abrasive composites are affixed to the backing using a metal coating or a series of coatings. The abrasive composites are added to an electroplating solution. The abrasive article then moves relative to the workpiece to remove material from the workpiece (Column 13, lines 24-30). The backing material is then separated from the support liquid. In some applications, the abrasive article is bonded to a support pad (Column 14, lines 35-41).

Unlike the claimed invention, Adefris does not teach that the discrete elements are spaced apart from each other.

Adefris (#929) discloses an abrasive article for polishing or grinding the surface of a workpiece. The abrasives have a top surface on a backing. The spacing of the abrasive composites may vary from about 0.3 abrasive composites per linear cm to about 100 abrasive composites per linear cm. This reads on the applicant's limitation of the discrete elements being spaced apart from each other and projecting from the support material.

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It is the Examiner's position that a person having ordinary skill in the art at the time of the claimed invention would have found it obvious to modify Adefris (#108) with the method of spacing the discrete elements apart as taught by Adefris (#929). The additional step of spacing the discrete elements apart would have been anticipated in order to produce an expected result.


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Culler et al. (US 5,942,015).

11. Any inquiry concerning this communication from the Examiner should be directed to Charlotte A. Brown whose telephone number is 703-305-0727. The Examiner can normally be reached during the hours of 9:00AM to 6:30PM.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After final communications.

CAB

June 28, 2002


BENJAMIN L. UTECH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700